

<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/687,552	MOLLOV ET AL	
	<b>Examiner</b>	<b>Art Unit</b>	
	Faye Polyzos	2884	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to submissions on 12 January 2006.
2. ☒ The allowed claim(s) is/are 1-50.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |   |
|---|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)  | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)           |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____ |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date <u>1/12/06</u> | 7. <input type="checkbox"/> Examiner's Amendment/Comment                              |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material                              | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance  |
|   | 9. <input type="checkbox"/> Other _____   |

## **EXAMINER'S STATEMENT OF REASONS FOR ALLOWANCE**

### ***Comment on Submissions***

1. This communication is responsive to submissions 12 January 2006.

### ***Information Disclosure Statement***

1. The information disclosure statement (IDS) submitted on 12 December 2006 was filed after the mailing date of the Notice of Allowance on 25 August 2005. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

### ***Allowable Subject Matter***

2. Claims 1-50 are allowed.
3. The following is an examiner's statement of reasons for allowance:

Regarding independent claim 1, the prior art does not disclose or fairly suggest a radiation projection detector apparatus for generating signals in response to a radiation beam where the detector comprises an access circuit coupled to the photo detector array and configured to collect signals from two or more of the lines of detector elements, comprised in the photo detector array, simultaneously.

The examiner notes that while it is known in the art for a radiation projection detector to comprise a multiplicity of X-ray detector elements arranged linearly in a channel arrangement direction to form a plurality of rows in the subject body axis direction for reconstructing a CT tomographic image of the subject based on detected signals from the X-ray detector (See for example Tanigawa et al – US 6,707,876 B2 – col. 1, lines 50-59), the prior art does not fairly suggest of an access circuit simultaneously collecting signals from two or more of the line of the detector elements.

Art Unit: 2884

Regarding independent claim 11, the prior art does not disclose or fairly suggest a radiation projection detector apparatus for generating signals in response to a radiation beam where the detector comprises an imager having an access circuit coupled to a detector array and configured to simultaneously collect signals from two or more of the lines of detector elements.

The examiner notes that while it is known in the art for a radiation projection detector to comprise data collecting means for converting channel combined signals for each group into projection data for each channel and collecting the projection data along the channel arrangement direction (See for example Tanigawa et al – US 6,707,876 B2 – Fig. 3 and col. 3, lines 66-67 and col. 4, lines 1-2), the prior art does not fairly suggest of an access circuit simultaneously collecting signals from two or more of the line of the detector elements.

Regarding independent claim 21, the prior art does not disclose or fairly suggest a radiation projection detector apparatus for generating signals in response to a radiation beam where the detector comprises a plurality of imager and an access circuit configured to collect signals from the first and the second imager simultaneously.

The examiner notes that while it is known in the art for a radiation projection detector to comprise data collecting means for converting channel combined signals for each group into projection data for each channel and collecting the projection data along the channel arrangement direction (See for example Tanigawa et al – US 6,707,876 B2 – Fig. 3 and col. 3, lines 66-67 and col. 4, lines 1-2), the prior art does not fairly suggest of multiple imagers or an access circuit to simultaneously collect signals from the multiple imagers.

Regarding independent claims 32, 36, and 40, the prior art does not disclose or fairly suggest a method, system or computer readable medium for collecting signals from a detector, the detector having a plurality of image elements, each of which having a transistor gate to send a control signal to select transistor gate for two or more image elements from which signals are to be collected and to simultaneously pass the signals from the image element lines to charge amplifiers coupled to the image elements.

The examiner notes that while it is known in the art for a radiation projection detector to comprise transistors and the number of currents to be distributed can be increased by increasing the number of transistors (See for example Tanigawa et al – US 6,707,876 B2 – col. 10, lines 37-44), the prior art does not fairly suggest of sending a control signal to select transistor gates for two or more image elements to collect signals or to simultaneously pass signals from the two or more image elements to charge amplifiers what which are couple to the image elements as disclosed supra.

Regarding independent claims 41, 49 and 50, the prior art does not disclose or fairly suggest a method, system or computer readable medium for collecting signals from a detector, the detector comprising a plurality of imagers where each imager comprises a plurality of lines of image elements and where the system comprises a means collecting signals from the imagers and simultaneously passing the signals on each of the plurality of imagers to charge the amplifier.

The examiner notes that while it is known in the art for a radiation projection detector to comprise a conventional data collecting section comprising a switch unit to combine the channel detected signal currents across the detector rows and a data collecting unit to generate a series of projection data (See for example Tanigawa et al –

Art Unit: 2884

US 6,707,876 B2 – Fig. 1 (Prior Art) and col. 2, lines 36-42), the prior art does not fairly suggest of a system for collecting signals and simultaneously passing signals of a plurality of imagers.

The remaining claims are allowable based on their dependency.

4. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”


### **Conclusion**

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Faye Polyzos whose telephone number is 571-272-2447. The examiner can normally be reached on Monday thru Friday from 7:30 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Porta can be reached on 571-272-2444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

6. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

FP



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